BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Nebraska Public Service Commission, on its own motion to make adjustments to the universal service fund mechanism established in NUSF-26.	) Application No. NUSF-50) Progression Order No. 3))))))
In the Matter of the Nebraska Public Service Commission, on its own motion, seeking to investigate whether the zones established in Docket No. C-2516 are appropriate in light of NUSF-26 findings and conclusions.	) Application No. C-3554/PI-) 112)))))))

POST-HEARING BRIEF OF COMMISSION STAFF

The Commission Staff (Staff), pursuant to the order of the Hearing Officer in the above-captioned proceedings, files this Post-Hearing Brief in support of the Staff's proposed methodology described more fully below. On February 28, 2006, the Nebraska Public Service Commission (Commission) opened Docket No. C-3554/PI-112 and issued Progression Order No. 2 in Docket No. NUSF-50. Docket No. C-3554/PI-112 sought comment on a zone unifying methodology to be used in coordination with a Nebraska Universal Service Fund (NUSF) porting methodology proposed in Docket No. NUSF-50 Progression Order No. 2.

INTRODUCTION

Commission Staff proposes a TELRIC compliant methodology to determine unbundled network element loop (UNE-L) rates, and develop NUSF portable support amounts, consistent with the support areas determined in Application No. NUSF-26.[1]

---
[1] *See* Docket No. NUSF-26, *In the Matter of the Commission, on its own motion, seeking to establish a long-term universal service funding mechanism,* Findings and Conclusions (November 3, 2004)(NUSF-26).

In Docket No. C-2516, the Commission conducted an investigation to establish rates for unbundled network elements (UNEs).[2] On April 23, 2002, the Commission released its findings in C-2516, adopting TELRIC-based UNE-L rates, reflecting forward-looking, efficient technologies, deaveraged over three cost based zones.

On November 3, 2004, the Commission issued its findings in NUSF-26, establishing a permanent universal service funding mechanism and adopting a method of porting support to Nebraska Competitive Eligible Telecommunications Carriers (CLECs). Pursuant to the adopted porting methodology, when a CLEC purchases a line from an Incumbent Local Exchange Carrier (ILEC), the NUSF support amount for that line is ported to the CLEC. The ILEC's NUSF support amount is then reduced by the amount ported to the CLEC. The NUSF support received by the ILEC for the purchased line is determined by the mechanism established in NUSF-26, and the UNE-L rates charged, to the CLEC, for said line are a function of the zones and rates established in C-2516.[3]

In its NUSF-26 findings, the Commission instituted a transitional porting support mechanism that froze the support level for residential lines at pre-NUSF-26 amounts for 5 years. The Commission clearly anticipated the need to re-evaluate the NUSF porting support structure in the future.[4]

On February 28, 2006, the Commission entered Progression Order No. 2 in NUSF-50, expanding its inquiry as it relates to porting NUSF support from an ILEC to a CLEC purchasing UNEs from

---

[2] *See* Docket No. C-2516/PI-49, *In the Matter of the Commission, on its own motion, to investigate cost studies to establish Qwest Corporation's rates for interconnection, unbundled network elements, transport and termination, and resale.* Findings and Conclusions, (April 23, 2002)(C-2516).
[3] *Supra* NUSF-26.
[4] *Id.*

an ILEC[5]. On the same date, the Commission opened Docket No. C-3554/PI-112, seeking comment on a methodology modifying the UNE-L rates adopted in C-2516 to be consistent with the support areas determined in NUSF-26.[6]

On December 19, 2006, the Commission entered an order in NUSF-50, making adjustments to the universal service fund mechanism established in NUSF-26. In the order, the Commission again recognized the need to re-evaluate the current porting structure.[7]

On February 5, 2007, the Commission entered a joint order in NUSF-50 Progression Order No. 2 and C-3554/PI-112, directing Staff to release a porting methodology to all interested parties.[8] A Hearing was held on the Staff proposal on May 1, 2007 in the Commission Hearing Room in Lincoln, Nebraska.

The Staff proposes a methodology, using the underlying data from both C-2516 and NUSF-26, to make the zones established in C-2516 align with the findings in NUSF-26. The Staff Proposal consists of two parts, the Unifying Methodology (UM) and the Porting Methodology (PM). The UM calculates a measure of total UNE loop costs and divides each of the three zones established in C-2516, into an out-of-town zone and an in-town zone using NUSF-26 data and results. The PM then uses the UNE loop rates calculated under the UM to determine the maximum portable NUSF

---

[5] *See* Docket No. NUSF-50, *In the Matter of the Commission, on its own motion, to make adjustments to the universal service fund mechanism established in NUSF-26*. Progression Order No. 2, (February 2, 2006).

[6] *See* Docket No. C-3554/PI-112, *In the Matter of the Commission on its own motion, seeking to investigate whether the zones established in Docket No. C-2516 are appropriate in light of NUSF-26 findings and conclusions*. Order Opening Docket, (February 28, 2006).

[7] *See* Docket No NUSF-50, *In the Matter of the Nebraska Public Service Commission, on its own motion, to make adjustments to the universal service fund mechanism established in NUSF-26*. Order, (December 19, 2006).

[8] *See* Docket No. NUSF-50 Progression Order No. 2, *In the Matter of the Nebraska Public Service Commission, on its own motion to make adjustments to the universal service fund mechanism established in NUSF-26* and Docket No. C-3554/PI-112, *In the Matter of the Commission on its own motion, seeking to investigate whether the zones established in Docket No. C-2516 are appropriate in light of NUSF-26 findings and conclusions*. Prehearing Conference Order, (February 5, 2007).

amount available to any CLEC that has purchased a loop from an ILEC.

ARGUMENT

I.   The Testimony of Qwest witnesses is beyond the scope of this proceeding and should be stricken.

Staff renews its objection and motion to strike the testimony of Qwest's witnesses, Peter Copeland and William Fitzsimmons. The sole purpose of this proceeding is to consider the methodology proposed by Staff to align zones and NUSF support. The Staff Proposal uses the rates that are currently in effect and reflects cost estimates using a regression analysis that was reviewed and accepted by the Commission in NUSF-26.[9] The testimony of Mr. Copeland and Dr. Fitzsimmons constitutes nothing more than a collateral attack on the Commission's prior orders in C-2516 and NUSF-26.

Mr. Copeland contends that Qwest's costs and competition have increased, and urges the Commission to increase the rates adopted by the Commission in C-2516.[10] If Qwest believes that its rates should be adjusted, it should file an appropriate application requesting a cost docket be conducted so that all factors affecting costs may be considered.

Dr. Fitzsimmons challenges the permanent funding mechanism adopted by this Commission in NUSF-26. Dr. Fitzsimmons raises concerns that were raised, considered and rejected in the NUSF-26 proceedings. The Commission found in NUSF-26 that the regression methodology reflects reasonable cost estimates.

The Commission should strike the testimony offered by Dr. Fitzsimmons and Mr. Copeland as clearly outside the scope of this proceeding and irrelevant to the current proposal.

---

[9] *Supra* C-2616; *supra* NUSF-26.
[10] Tr. 160-161.

II. The Staff Proposal is consistent with TELRIC principles and offers forward-looking, cost-based rates.

Much of the testimony at the hearing and the comments filed focus on whether the proposed methodology is TELRIC based. TELRIC, an acronym for Total Element Long-Run Incremental Costs, is the method of determining rates for UNEs that has been prescribed by the FCC.[11] TELRIC is forward-looking and employed to determine rates based on the cost of rebuilding an entire telephone network using the most efficient technology currently available. During the cost docket, C-2516, three economic models were considered by the Commission for the development of TELRIC compliant rates: HAI, HCPM, and BCPM.[12]

The Staff Proposal begins with the current TELRIC based rates for the three zones established in C-2516. The rate in each zone is then multiplied by the total number of residential access lines in each zone to determine the total TELRIC cost by zone. Next, results of the TELRIC compliant regression analysis, developed and adopted in NUSF-26, are used to allocate the costs between high-cost out-of-town areas and lower-cost in-town areas. Finally, simple math is used to determine the amount of NUSF ported for each line.[13]

No party questioned whether the rates utilized as inputs to the Staff Proposal are TELRIC compliant, even after Qwest voluntarily reduced the Commission adopted rates through negotiations with the FCC. In fact, Mr. Copeland agreed that the initial rates used in the Staff's Proposal are TELRIC compliant:

---

[11] 47 CFR §§ 51.503(b)(1), 51.505(a).
[12] *Supra* C-2516.
[13] Tr. 85.

> Commissioner Landis: Why would they [FCC] agree to
> something that wouldn't be TELRIC? I mean, I'm
> not sure why we're questioning that today. . . .
> Why would they even have it in an order if it
> wasn't TELRIC, which would be in direct violation
> of the federal law? Doesn't make sense.

> Mr. Copeland: Qwest's viewpoint, we are not arguing
> whether the 62.49 – 50 is TELRIC. That's not
> part of our questioning.[14]

Qwest criticized the Staff Proposal's use of currently effective UNE loop rates, not for being non-TELRIC based, but rather because they do not reflect Qwest's alleged increased costs and competition.[15] Qwest next raised the same criticisms of the NUSF-26 regression analysis as they have offered previously, but again offered no specific reasons why the NUSF-26 regression methodology, previously adopted by the Commission, is not TELRIC complaint. Other parties criticized the resulting rates as not being "cost-friendly" to CLECs trying to compete in rural, high-cost areas. However, no party offered any substantial argument or evidence illustrating that the Staff Proposal was not TELRIC based.

A.   BCPM is an economic model of TELRIC, BCPM is not synonymous with TELRIC.

BCPM is <u>one</u> economic model, considered by the Commission, designed to model TELRIC. However, BCPM is only one of many tools available to model TELRIC. Other models, such as HAI, were also considered by the Commission in C-2516. Although, HAI and BCPM produced widely different rates, both produced TELRIC rates. Because of the disparity in the results of each of the models, the Commission ultimately decided that an average of the

---

[14] Tr. 165-166.
[15] Tr. 169-170.

rates produced by the three models, HAI, HCPM, and BCPM, should be adopted as the TELRIC rate in Nebraska.[16]

During testimony, Qwest witnesses argued that a portion of the Staff's NUSF-26 regression does not sufficiently follow the BCPM model and thus the Staff Proposal is not TELRIC compliant.[17] However, Dr. Fitzsimmons' conclusions are oversimplified. BCPM does not equal TELRIC. Again, BCPM is one of multiple models used to determine TELRIC rates. Calculations inconsistent with BCPM do not equal calculations that are not TELRIC based. In fact, Mr. Copeland admitted in response to questioning by Commissioner Landis that none of the available models may fit or give, the "right answer":

> Commissioner Landis: You say that the staff model
>   doesn't fit either, BCPM or Hatfield or the other
>   FCC cost model. Do you think that any one of
>   those three in your opinion gives the right
>   answer in all circumstances?
>
> Mr. Copeland: No.[18]

B. Households is an appropriate measure used in the BCPM model and employed in the Staff Proposal, consistent with the findings in C-2516 and NUSF-26.

The Staff Proposal employs households in its calculations, consistent with NUSF-26. Extensive cross-examination was conducted on Commission witnesses concerning the Staff's decision to use households. Qwest's argument, using households instead of lines somehow made the Staff Proposal inaccurate, lacks merit. As Dr. Rosenbaum explained:

---

[16] *Supra* C-2516.
[17] Tr. 194.
[18] Tr. 173.

> Mr. Goodwin: And if the expected loop cost was
> weighted by lines and not households, that
> would change the numbers in Line 6?
>
> Dr. Rosenbaum: I don't think it would.
>
> Mr. Goodwin: Why not?
>
> Dr. Rosenbaum: Because usually when we go from
> households to lines or at least residential
> lines, we're just using a multiplicative
> factor. When you use the same
> multiplicative factor, say, 1.2 households
> per line and then you look at relative costs
> or average, the 1.2 cancels out. So whether
> you use households or you use 1.2 [lines],
> it doesn't matter.
>
> Mr. Goodwin: But the costs are determined on a
> per-line basis; right?
>
> Dr. Rosenbaum: The costs are the expected costs
> per line as a function of household density,
> yes. That is correct. But, again, whether
> you use household lines – that's the nice
> thing about looking at relative costs.
> Whether you use number of households or
> residential lines, it doesn't matter, as
> long as the ratio of residential lines to
> households is a multiplicative factor
> because the factor washes out.[19]

The Staff Proposal's use of households does not adversely affect the outcome, the establishment of a per-line TELRIC compliant UNE rate.

C. **Cost calculation and allocation are employed in any cost model.**

As a practical matter, cost calculation and allocation on different levels is done whenever and wherever costs are allocated, in any business model. Mathematically, whether the

---

[19] Tr. 135-136.

costs are calculated at the sub-wire center level and then averaged to the wire center level or costs are calculated at the wire center level and then allocated to the sub-wire center level, the costs are the same.

Qwest argues that the Staff Proposal cannot be TELRIC compliant because it relies on BCPM inputs that were not intended to be used below the wire center level. However, under cross-examination, Mr. Copeland stated that the development process of the BCPM model was done at the sub-wire center level or by variable grids. Mr. Copeland stated:

> When we designed BCPM to look at customer location, we split up the states based on portions of latitude and portions of longitude into equal-size small grids. And essentially in a processing mode with – that was done prior to the model run with a geographic information system provider, *aggregated* customers in these and tried to be . . . ended up as an ultimate grid. And this was a sub-wire center unit that was then built to design the feeder plant to those, and the distribution areas would be within those carrier-serving areas.[20]

Mr. Copeland admits that the costs in the model were determined after the numbers were aggregated to the wire center level. He contends that BCPM was never intended to be considered at the sub-wire center level and seems to imply therefore, that the Staff Proposal is not TELRIC based. This argument is without merit.[21] Regardless of the original intent of the creators of the BCPM model, allocating from the wire center to the sub-wire center using BCPM methodology is TELRIC compliant.

In C-2516, the Commission averaged the wire center level results of three models, HAI, BCPM, AND HCPM, to determine cost-based zone UNE-L rates. The Staff Proposal does nothing more

---

[20] Tr. 183. (Emphasis added).
[21] Tr. 184.

than deaverage the TELRIC compliant rates in the three zones set by the Commission into areas below the wire center level.

D. Staff's NUSF-26 Regression Analysis is Reasonable and Well Within Acceptable Ranges.

In his rebuttal testimony, Dr. Rosenbaum enumerated three statistical criteria used to examine the validity of the regression linking loop cost to density. They were a 't' test, an 'F' test and R squared.[22]   A 't' test quantifies the statistical likelihood that there is a relationship between density and loop cost.   According to the estimated results, there is less than a one percent chance that there is not a relationship between the two.   An 'F' test measures whether the model as a whole is statistically valid.   The estimated results show that there is less than a one percent chance that the model is not statistically valid.   Finally, an R squared measures the percent of the variation in the data explained by the regression analysis.

Dr. Rosenbaum further explained that 95 percent of the variation between density and the natural log of loop cost was explained by the model.   He also explained that when the R squared is calculated based on loop cost estimates, not the natural log of loop cost, the R squared is .78, indicating that the regression of cost on density explains almost 80 percent of the variation in the data.[23]   The Commission found this to be convincing evidence that the regression is a reasonable method for explaining loop cost in NUSF-26.

In his testimony, Dr. Fitzsimmons attacked the statistical validity of the Staff's regression procedure used to link density to loop cost in NUSF-26.   For example, he stated, "the model does a poor job of capturing variations in the BCPM loop

---

[22] Tr. 270-271.
[23] Tr. 270-271.

cost estimates"[24], and "there is substantial amount of variation in the BCPM cost estimates around the fitted FR equation".[25] Unfortunately, Dr. Fitzsimmons provides no statistical criteria for evaluating whether or not the fit is poor or the variation is substantial. In fact, his only criterion seems to be "visual inspection".

III. Practical Application of the Staff Proposal.

Qwest also raised the issue of the practical application of new zones and rates, namely the cost to carriers to institute the required billing changes and determining what loops are in-town and what loops are out-of-town.[26] While Staff agrees that the practical application of new zones and rates will require some restructuring, a system for determining in-town and out-of-town is already in affect by most carriers. Carriers are required to make such distinctions when determining which subscribers are to be assessed local taxes, such as, city sales tax. Those subscribers that reside outside of the incorporated limits of a city, town or village will not be assessed city sales tax and vice versa. The fact that in many areas of the state and nation, that distinction is already being drawn today by carriers seems to belie the argument that the carriers will be unable to determine a system for designating in-town and out-of-town loops.

Further, data and systems are available to assist in determining in-town and out-of-town boundaries. As referred to in the hearing, the Commission adopted a procedure for

---

[24] *See* Direct Testimony of William Fitzsimmons, designated as Hearing Exhibit No. 10, p. 10.
[25] *Id*. at 14.
[26] Tr. 17-20.

determining in and out-of-town areas in NUSF-26 Progression Order No. 5.[27] The order stated:

> All support areas are created using 2000 census data, collected by the U.S. Bureau of the Census. Census blocks are aggregated, by "town" areas and "out-of-town" areas to create the support areas within each wire center and utilized by the SAM [Support Allocation Methodology]. Town areas are identified as cities, villages, or unincorporated areas with 20 or more households and densities greater than 42 households per square mile. Out-of-town areas are the remaining areas that have not been assigned to a town.[28]

Thus, one methodology using U.S. census data has already been considered and adopted by the Commission. Further, as Mr. Frost testified at the hearing, Geographical Information System (GIS) data could be utilized to assist in implementing the definition of in-town and out-of-town adopted in NUSF-26 for purposes of the proposed methodology.[29]

IV. The Staff Proposal is Competitively Neutral, Reasonable and Sound Public Policy.

The current system of three UNE zones, as determined in C-2516, and NUSF payments determined at an in-town and out-of-town support area level, as determined in NUSF-26, is not competitively neutral and creates distortions. For example, under the current system, when a CLEC purchases an in-town residential access line in zone 3 from the ILEC, it incurs a cost of $62.49 and receives $69.59 in ported NUSF support.

---

[27] *See* Docket No. NUSF-26, *In the Matter of the Commission, on its own motion, seeking to establish a long-term universal service funding mechanism,* Second Erratum to Progression Order No. 5 (July 22, 2004) at Appendix A.
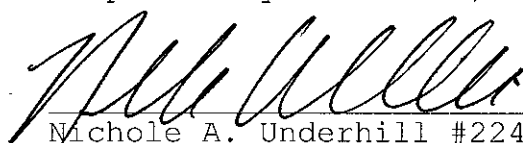[28] *Id.* at p. 6.
[29] Tr. 55.

While to purchase an in-town business access line in zone 3, the CLEC pays $62.49 to the ILEC and receives no NUSF support.

The Staff Proposal is a reasonable solution to the competitive inequality inherent in the current system. Further, it provides the means by which the Commission can ensure that ported NUSF support is also targeted to high-cost areas of the state, consistent with the findings in NUSF-26.

V. Conclusion

Staff strongly urges the Commission to adopt the Staff Proposal that aligns the C-2516 zones with the findings of NUSF-26. The methodology is TELRIC complaint, competitively neutral, economically and statistically sound, further focuses NUSF support on the truly high cost areas of the state and represents the continued development of a sound USF methodology within the state of Nebraska.

Respectfully submitted,

Nichole A. Underhill #22492
Legal Counsel
Nebraska Public Service Commission
300 The Atrium, 1200 N Street
Lincoln, NE 68508
(402) 471-0234
nichole.underhill@psc.ne.gov

May 30, 2007

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on this 30th day of May, 2007, an electronic copy with paper copies following of the foregoing was delivered to:

Timothy J. Goodwin
Qwest Services Corporation
1801 California, Ste. 1000
Denver, CO 80202

Mark A. Fahleson, Esq.
Rembolt Ludtke & Berger, LLP
1201 Lincoln Mall, Ste. 102
Lincoln, NE 68508

Jill Vinjamuri-Gettman
GETTMAN & MILLS LLP
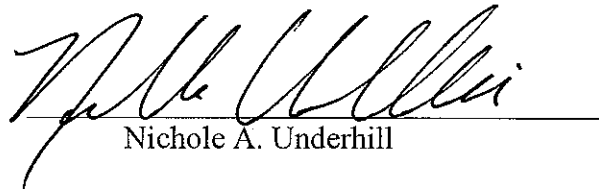10250 Regency Circle Suite 200
Omaha, NE 68114

Jack L. Schultz, Esq.
Harding, Schultz & Downs
800 Lincoln Square
121 S. 13th Street
Lincoln, NE 68501-2028

Steven G. Seglin, Esq.
Crosby, Guenzel, Davis, Kessner &
Kuester
134 S. 13th, Ste. 400
Lincoln, NE 68508

Embarq Corporation
William E. Hendricks
902 Wasco Street
Hood River, OR 97031

Paul M. Schudel, Esq.
Woods & Aiken
206 S. 13th St., Ste. 500
Lincoln, NE 68508

Loel P. Brooks, Esq.
Brooks Pansing Brooks, P.C.
984 NBC Center
1248 O Street
Lincoln, NE 68508

Nichole A. Underhill